

**What Is Claimed Is:**

1. A system for the take-off of the materials using a two-dimensional CAD interface, in a computer terminal having a CAD system for creating a variety of design items for architecture, civil engineering, machinery, and facilities in a CAD drawing,  
5 comprising:

project information containing means for containing project information including position data, design specifications, and shape data for a variety of design items;

material/cost containing means for containing material information and cost information for building elements included in a CAD drawing in which a variety of design items for a project are stated; and  
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bill-of-material take-off processing means for the take-off of the materials and cost for an object by analyzing position information, shape information, and material information for building elements included in the CAD drawing created by the CAD system with reference to the project information of the project information containing means and the material information and cost information of the material/ cost containing means.  
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2. The system of claim 1, the bill-of-material take-off processing means comprises:

20 a device for extracting position information by extracting a room code having a name and a position code for building elements for each building, floor, and room of the CAD drawing and correcting and supplementing an entity of the CAD drawing with reference to the project information of the project information containing means;

a device for extracting shape information for building elements for each building,  
25 floor, and room having a given position information;

a device for selecting a composite material code of the material/cost containing means and linking the same with materials included in each building element; and

a device for the take-off of the materials and cost.

5        3. The system of claim 2, wherein, in the device for extracting position information and correcting and supplementing an entity, the height of each object taken-off by length data, area data, and portion data is a predetermined default height.

10       4. The system of claim 2, wherein, in the device for extracting position information and correcting and supplementing an entity, the height of each object taken-off by length data, area data, and portion data is unit height information arbitrarily inputted by an operator.

15       5. The system of claim 2, wherein the device for extracting shape information extracts shape information for forming a closed curve with center on a reference line intersected by objects having a given room code by analyzing line data, surface data, and portion data for building elements for each building, floor, and room included in the CAD drawing.

20       6. The system of claim 5, wherein the device for selecting a composite material code and linking the same links the position and shape of an object as a single information by transferring the handle value of a polyline entity of the closed curve from room name code entity data to extended data.

25       7. A method for the take-off of the materials using a two-dimensional CAD

interface, comprising the steps of:

extracting position information for building elements for each building, floor, and room included in the CAD drawing, and correcting and supplementing an entity of the drawing with reference to the project information corresponding to the CAD drawing;

5 extracting object shape information for building elements for each building, floor, and room having the taken-off position information and linking the position information of an object with the shape information;

10 selecting a composite material code for materials included in the building elements and integrating the composite material code for the position information and shape information as a finish number;

the take-off of the materials and cost for each building element with reference to the selected material code.

8. The method of claim 7, wherein the step of taking-off object shape information  
15 comprises the steps of:

executing drawing for entering the code of surface data included in the CAD drawing and calculating area data;

executing drawing for entering the code of line data and calculating horizontal and longitudinal lengths;

20 entering the code of portion data in order to calculate a bill of materials; and

taken-off shape information by generating a closed curve with center on an object reference line for building elements for each building, floor, and room by the area data, horizontal and longitudinal length data, and portion data.

25 9. The method of claim 8, wherein, in the step of linking the position information

and shape information for an object, the position and shape of an object are linked with each other as single information by transferring a handle value of a polyline entity of the closed curve to the extended data in the room name code entity data.

5        10. A method for the take-off of the materials using a two-dimensional CAD interface, comprising the steps of:

         registering a project for an object to be built, installed, and manufactured; searching  
for a material code system corresponding to the registered project from code systems  
contained in a database, and if the material code system does not exist, registering it as a  
10       new code system;

         selecting a material code by classifying the registered code system into certain  
types;

         copying the material code and related data into the registered project; and

         the take-off of the materials for a CAD entity using the material code and related  
15       data copied according to the project.

      11. A method for the take-off of the materials using a two-dimensional CAD interface, comprising the steps in which:

         a client's computer creates a CAD drawing according to a predetermined project;

20       the client's computer connects to a web host server via a communication network to  
thus request an information provision service of building and construction information  
for the created CAD drawing design and transmit the corresponding design drawing;

         the web host server receives the design drawing, and estimates shape and position  
information and bill of material, process, and cost information for the building and  
25       construction information based on material codes and cost information contained in the

database upon receipt of the design drawing; and

the web host server creates a detail take-off sheet for the taken-off information, and transmit the same to the client's computer having requested an information provision service via the communication network.

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12. The method of claim 11, wherein the step of requesting a information provision service comprises the steps in.

if the client computer requests an information provision service, the web host server take off a service cost for the information provision service request and discloses it in the web site; and

the client computer settles the payment of a service cost suggested by the web host server.

13. The method of claim 11, wherein the step of taking-off a service cost and disclosing it in the web site further comprises the step in which the if there is a service cost adjustment request from the client computer, a service cost adjustment is executed in real time by character and voice chatting services and by exchanging e-mail data.

14. The method of claim 11, wherein the step of estimating building and construction information further comprises the step of converting fonts of the CAD drawing into fonts compatible with other fonts.

15. The method of claim 11, wherein, in the step of requesting building and construction information for the CAD drawing and transmitting the corresponding design drawing, the web host server gives a user number exclusively used only for the

client, and executes the inquiry of a service cost, the transmission of the CAD drawing, and the payment of the cost by using the user number.